

Work Order ID 163304

163304

Page 1

Tuesday, June 27, 2017 12:04:34 PM

Item ID: D2282-043 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Saddle Assembly
 Start Date: 7/5/2017 Start Qty: 5.00 *5* Cust Item ID:
 Required Date: 7/21/2017 Req'd Qty: 5.00 *5* Customer:
 Reference:

Approvals: Process Plan: DAS Date: JUL 03 2017 Tooling: _____ Date: _____ Run Start *NR1*
 QC: 21 Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2282	Rev E								
100	Weld per dwg A/R S.S. rod Batch: <u>136585</u>	0.00							
100	Large Fab								
Large Fab	Memo	1.00							
Large Fab	1-Weld as per D2282-043 Saddle Assembly								
	A/RER316L SS Filling Rod								
	Dwg Rev: <u>E</u>								
110		0.00							
110	Small Fab								
Small Fab	Memo	0.19							
Small Fab	1- Grind weld with rough pad and brown pad, take all welding marks out and deburr holes***DO NOT TAKE RED AND BLUE PAD TO BUFF PART***								
120	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
120									
QC	Memo	0.10							
Quality Control									

S Q.L 17-07-11

S Q.L 17-07-11

Q 17-07-13 DAS
9
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130									
Small Fab	Memo	0.50							
Small Fab	1 - Tumble <i>N/A</i> <i>DAS 9 9-89</i>								
150	QC5- Inspect part completeness to step on W/O	0.00							
150									
QC	Memo	0.10							
Quality Control									<i>DAS 9 9-89</i>
160	Identify as per dwg & Stock Location: _____	0.00							
160									
Packaging	Memo	0.10							
Packaging	<i>LOCATION : GA</i>								<i>DAS 6 9-89</i>

5 **JUL 13 2017**

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.50							
Quality Control									

DAS
21
9-89

JUL 13 2017

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WORK ORDER NON-CONFORMANCE / UPDATE



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Work Order update only ☐

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Misidentified ☐	Past Due ☐																																																																

Picklist Print

Tuesday, June 27, 2017 12:04:32 PM

Page 1

Work Order ID: 163304

163304

Parent Item: D2282-043

D2282-043

Parent Item Name: Saddle Assembly

Start Date: 7/5/2017

Required Date: 7/21/2017

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP Rev:A Removed from 9 Digit 05-12-02 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2281

Manufactured No

100

Each

47.0000

1

5

**

Q.L 12-07-11

OK *D2281*
Jack Saddle

Location

Loc Qty

Loc Code

WA001

47

150910

0

161680

7

162386

40

5

D2282-7

Manufactured No

100

Each

116.0000

2

10

**

Q.L 12-07-11

OK *D2282-7*
Tube

Location

Loc Qty

Loc Code

WA001

116

161753

116

10

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

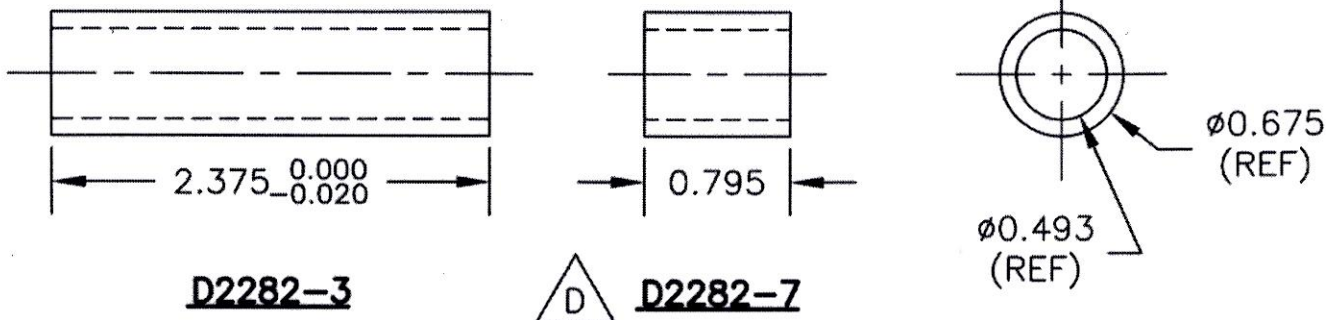
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
								OTHER :	



DESIGN BW	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2282	REV. E SHEET 1 OF 2
DATE 05.06.07	TITLE HANDLE TUBES		SCALE 1:1
A	94.10.14	NEW ISSUE	
B	95.03.23	RE-DESIGN	
C	97.10.20	CORRECTED NUMBERING SCHEME	
D	05.03.16	REDESIGN D2282-5; 0.795 WAS 0.750	
E	05.06.07	D2282-5 304 SS WAS 303 SS; R0.063 x 0.063 WAS R0.080 x 0.030	

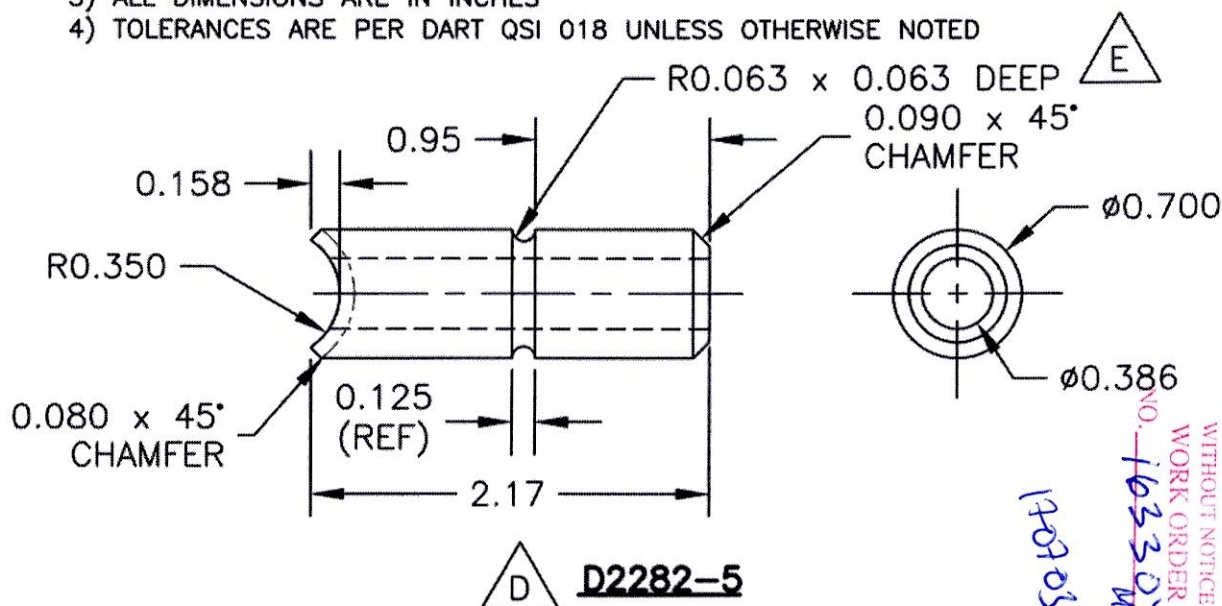
RELEASED
[Signature]
05/09/16

DEO ATTACHED



D2282-3/-7 TUBE:

- 1) MATERIAL: T304/T316 3/8 SCHEDULE 40 (REF. DART SPEC. M304TR0.675W.091)
- 2) BREAK ALL UMARKED SHARP EDGES 0.005 TO 0.010
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



D2282-5 STEM:

- 1) MATERIAL: AISI 304 STAINLESS STEEL (REF. DART SPEC. M304R0.750)
- 2) BREAK ALL UMARKED SHARP EDGES 0.005 TO 0.010
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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SHOP COPY

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 163304

140703

140703

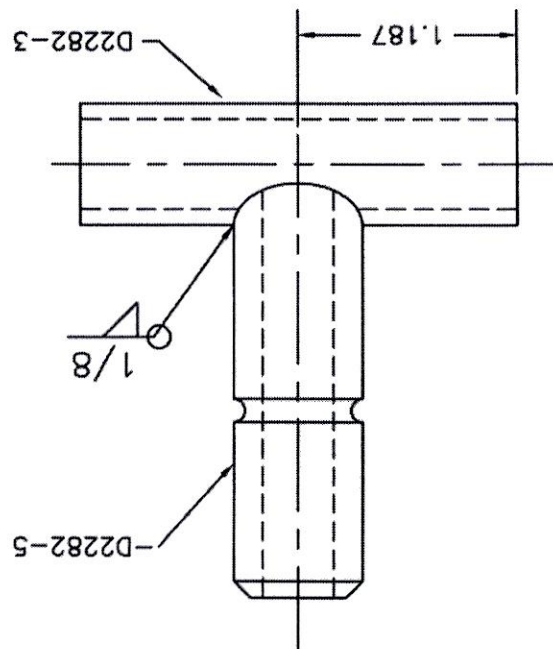
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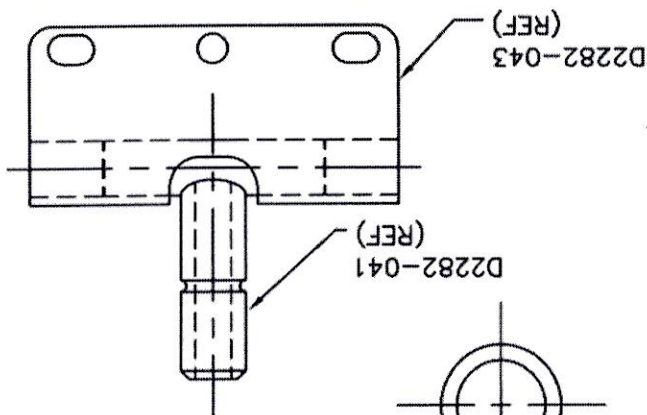
DESIGN	BW	DRAWN BY	APPROVED	DATE	05.06.07
CHECKED				TITLE	HANDLE TUBES
DRAWING NO.	D2282	SCALE	1:1	REV. E	SHEET 2 OF 2
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA					

DEO ATTACHED

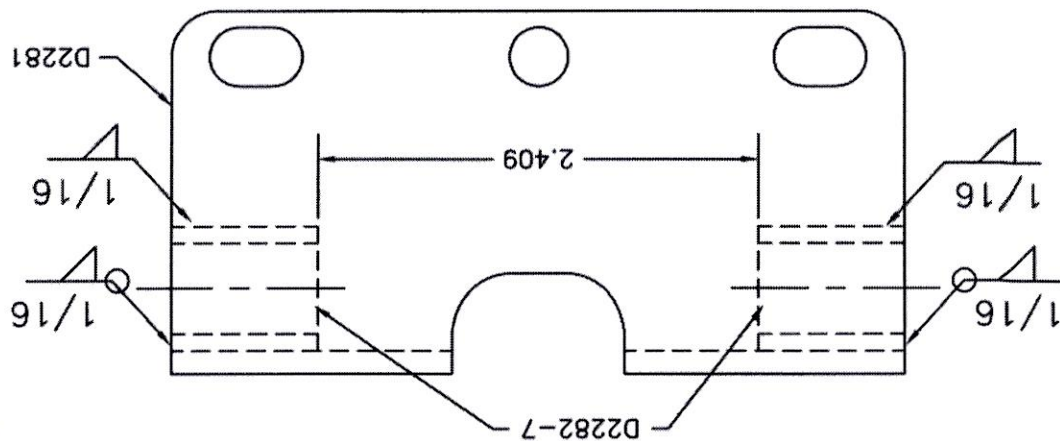
RELEASED
05/09/16



D2282-041 'T' ASSEMBLY
WELD ASSEMBLY PER DART QSI 004



GENERAL ASSEMBLY
SCALE 1:2



D2282-043 SADDLE ASSEMBLY
WELD ASSEMBLY PER DART QSI 004

DRAWING NO. D2282	TITLE HANDLE TUBES	REV. E	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D2282-E-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>qp</i>	CHECKED <i>M Lee</i>	MFG. APPR. <i>DD</i>	APPROVED <i>all</i>		DE APPR. <i>N/A on</i>		
DATE 17.02.24	DATE 17.06.22	DATE 17-6-22	DATE 2017.06.23		DATE <i>N/A on</i>		

PURPOSE

CORRECT MATERIAL CALL-OUT TO ELIMINATE PIPE/TUBE CONFUSION (NCR16-5830)

CHANGE

MATERIAL CALL-OUT FOR D2282-3/-7 ON SHEET 1 IS UPDATED AS FOLLOWS:

IS:

D2282-3/-7 TUBE:

- 1) MATERIAL: Ø0.675 X 0.091 WALL SEAMLESS ROUND TUBING, TP304/TP316 STAINLESS STEEL PER ASTM A213 / A269 OR ASME SA213 / SA269
(REF. DART SPEC. M304TR0.675W0.091)
OR
3/8 SCHEDULE 40 SEAMLESS PIPE, TP304/TP316 STAINLESS STEEL PER ASTM A312 OR ASME SA312
(REF. DART SPEC. M304P0.675W0.091)

WAS:

D2282-3/-7 TUBE:

- 1) MATERIAL: T304/T316 3/8 SCHEDULE 40 (REF. DART SPEC. M304TR0.675W0.091)

RELEASED

2017 JUN 26 *qp*
ECN 17-595